Vol.11 No.1 1994

CONTENTS

The Vertical Transport of Air Pollutants by Convective Clouds Part II: Transport of Soluble Gases and Sensitivity Tests ····· *Kong Fanyou* (孔凡铀) (1)

The Vertical Transport of Air Pollutants by Convective Clouds. Part III: Transport Features of Different Cloud Systems ····· *Kong Fanyou* (孔凡铀) and *Qin Yu* (秦 瑜) (13)

Study on Atmospheric Ozone in East Asia with Satellite Observation ····· *Zhao Bolin* (赵柏林), *Li Wanbiao* (李万彪) and *Zhu Yuanjing* (朱元竞) (27)

Arnol'd's Second Nonlinear Stability Theorem for General Multilayer Quasi-geostrophic Model ····· *Liu Yongming* (刘永明) and *Mu Mu* (穆穆) (36)

Vertical Structure of Beta Gyres and Its Effect on Tropical Cyclone Motion ····· *Tian Yongxiang* (田永祥) and *Luo Zhexian* (罗哲贤) (43)

A GCM Study on the Mechanism of Seasonal Abrupt Changes ····· *Wang Huijun* (王会军) and *Zeng Qingcun* (曾庆存) (51)

On Mechanisms of Nucleation of Ice Crystals by Aerodynamic Cooling ····· *Huang Shihong* (黄世鸿), *Qian Changguo* (钱昌国), *Wang Weimin* (王伟民) and *Li Ruxiang* (李如祥) (57)

Oscillatory Rossby Solitary Waves in the Atmosphere ····· *Chen Zhongming* (陈忠明), *Liu Fuming* (刘富明), *Li Xiaoping* (李小平) and *Tao Jie* (陶 杰) (65)

Note on the Symmetric Stability of Quasi-Homogeneous and Incompressible Rotating Ocean ····· *Ren Shuzhan* (任舒展) (74)

The Analysis on the Features of the Atmospheric Circulation in Preceding Winters for the Summer Drought and Flooding in the Yangtze and Huaihe River Valley ····· *Sun Bomin* (孙柏民) and *Sun Shuqing* (孙淑清) (79)

Nonlinear Ultra-Long Wave and Its Stability ····· *He Jianzhong* (何建中) (91)

Evaluation of Forecast Performance of an Economical Explicit Time Integration Scheme in a Limited Area Model over Indian Region ····· *A. Bandyopadhyay* and *S.S. Singh* (101)

Diurnal Variation of Southwest Monsoon Rainfall at Indian Stations ····· *J.M. Pathan* (111)

No.2

A Note on Some Methods Suitable for Verifying and Correcting the Prediction of Climatic Anomaly
····· *Zeng Qingcun* (曾庆存), *Zhang Banglin* (张邦林) and *Yuan Chongguang* (袁重光) et al. (121

Simultaneous Non-linear Retrieval of Atmospheric Temperature and Absorbing Constituent Profiles from Satellite Infrared Sounder Radiances ····· *Li Jun* (李 俊), *Zhou Fengxian* (周凤仙) and *Zeng Qingcun* (曾庆存) (128

The Influence of Changes in Vegetation Type on the Surface Energy Budget
····· *Runhua Yang, J. Shukla* and *P. J. Sellers* (139

A Model Study of Three-Dimensional Wind Field Analysis from Dual-Doppler Radar Data
····· *Kong Fanyou* (孔凡铀), and *Mao Jietai* (毛节泰) (162

Helicity Dynamics of Atmospheric Flow ····· *Tan Zhemin* (谈哲敏) and *Wu Rongsheng* (伍荣生) (175

A Comparison Study of the Climatological Air-Sea Heat Fluxes Estimated by Different Computational Schemes of Bulk Formula ····· *Fu Congbin* (符淙斌), *Robert Pyle* and *Fan Huijun* (范慧君) (189

Numerical Modelling of the Effects of Ozone on the Summer Atmospheric Circulation
····· *Wang Qianqian* (王谦谦), *Wang Yinhui* (汪迎辉) and *Qian Yongfu* (钱永甫) et al. (201

Numerical Simulation for the Impact of Deforestation on Climate in China and Its Neighboring Regions
····· *Song Yukuan* (宋玉宽), *Chen Longxun* (陈隆勋) and *Dong Min* (董 敏) (212

A Forecasting Model of Vector Similarity in Phase Space for Flood and Drought over the Huanghe-Huaihe-Haihe Plain in China ··· *Zhou Jiabin* (周家斌), *Wang Yunkuan* (王允宽) and *Yang Guiying* (杨桂英) et al. (224

Modelling the Interannual Variation of Regional Precipitation over China ····· *Wang Huijun* (王会军) (230

Water Resources of the South Asian Region in a Warmer Atmosphere ····· *M. Lal* (239

Improving the Vorticity-Streamfunction Method to Solve Two-Dimensional Anelastic and Nonhydrostatic Model
····· *Sun Litan* (孙立潭) and *Huang Meiyuan* (黄美元) (247

An Introduction to the New Book-"Geostrophic Wave Circulation" by Yong L McHall

No.3

A Diagnostic Study of Explosive Development of Extratropical Cyclone over East Asia and West Pacific Ocean
..... *Jia Yiqin* (贾逸琴) and *Zhao Sixiong* (赵思雄) (251)

Optimal Use of High Resolution Infrared Sounder Channels in Atmospheric Profile Retrieval
..... *Li Jun* (李 俊) and *Huang Hung-Lung* (黄鸿荣) (271)

Preliminary Study of Reconstruction of a Dynamic System Using an One-Dimensional Time Series
..... *Peng Yongqing* (彭永清) *Zhu Yufeng* (朱育峰) and *Yan Shaojin* (严绍瑾) (277)

Study on the Thermal Internal Boundary Layer and Dispersion of Air Pollutant in Coastal Area by Numerical Simulation ..... *Jiang Weimei* (蒋维楣) and *Yu Hongbin* (于洪彬) (285)

Symmetric Stability of Rotation and Boussinesq Fluid in Bounded Domain by Using Normal Mode Method
..... *Ren Shuzhan* (任舒展) (291)

Study of the Simultaneous Physical Retrieval Method fór Meteorological Parameters over the Continental Plateau of China ..... *Li Guangqing* (黎光清) *Dong Chaohua* (董超华) *Zhang Wenjian* (张文建) et al. (296)

Winter Asia Jetstream and Seasonal Precipitation in East China
..... *Liang Pingde* (梁平德) and *Liu Aixia* (刘爱霞) (311)

Modelling the January and July Climate of 9000 Years before Present ..... *Wang Huijun* (王会军) (319)

Estimation of Winds at Different Isobaric Levels Based on the Observed Winds at 850 hPa Level Using Double Fourier Series ..... *S. N. Bavadekar* and *R. M. Khaladkar* (327)

Signatures of a Universal Spectrum for Nonlinear Variability in Daily Columnar Total Ozone Content
..... *A. M. Selvam* and *M. Radhamani* (335)

A Modeling Study of Climatic Change and Its Implication for Agriculture in China Part I: Climatic Change in China
..... *Dai Xiaosu* (戴晓苏) and *Ding Yihui* (丁一汇) (343)

A Study of Heavy Rainfall of 8–10 June, 1991 over Maharashtra, India
..... *A. K. Kulkarni, B. N. Mandal* and *R. B. Sangam* (353)

Interactions between the 30–60 Day Oscillation, the Walker Circulation and the Convective Activities in the Tropical Western Pacific and Their Relations to the Interannual Oscillation ..... *Huang Ronghui* (黄荣辉) (367)

13 283HI 1166
XL
5/95 31249-200 NULE

No.4

Simplified Dynamic Models of Grass Field Ecosystem
..... *Zeng Qingcun* (曾庆存), *Zeng Xiaodong* (曾晓东), and *Lu Peisheng* (卢佩生) (385)

Study of Effects of Beta Term and Nonlinear Advection on the Structure of Tropical Cyclones
..... *Luo Zhexian* (罗哲贤) (391)

Numerical Modellings of Properties of the Summer Quasi-Stationary Circulation Systems and Their Monthly Variations ..... *Qian Yongfu* (钱永甫), *Qian Yun* (钱 云) and *Wang Qianqian* (王谦谦) (399)

The Theoretical Model of Atmospheric Turbulence Spectrum in Surface Layer
..... *Liu Shida* (刘式达), *Liu Shikuo* (刘式适) and *Xin Guojun* (辛国军) et al. (408)

Statistical Regression Analysis of Response of Northern Mid and Upper Tropospheric Circulation to Winter Eurasian Snow Cover Effects ..... *Xu Jianjun* (徐建军) (415)

Temperature and Water Vapor Weighting Functions from Radiative Transfer Equation with Surface Emissivity and Solar Reflectivity ..... *Li jun* (李 俊) (421)

Seasonal Variation of Stationary and Low-Frequency Rossby Wave Rays
..... *Lu Keli* (吕克利) and *Zhu Yongchun* (朱永春) (427)

Efficient Anomalous Forcings for Linear Problems ..... *Li Zhijin* (李志锦) and *Ji Liren* (纪立人) (436)

A Data-Adaptive Filter of the Tahiti-Darwin Southern Oscillation Index and the Associate Scheme of Filling Data Gaps ..... *Zhang Banglin* (张邦林) (447)

The Fractal Dimension Distribution of the Short-Term Climate System in China and It's Connection with the Monsoon Climate ..... *Zhang Fuqing* (张福青), *Lin Zhenshan* (林振山) and *Jiang Quanrong* (蒋全荣) (459)

Seasonal Variation Features of Western North Pacific Tropical Cyclone Tracks with Their Predictability
..... *Peng Yongqing* (彭永清) and *Yan Shaojin* (严绍瑾) (463)

Microwave Simulations of Precipitation Distribution with Two Radiative Transfer Models
..... *Liu Jinli* (刘锦丽) and *Lin Longfu* (林龙福) (470)

A Two-Step Shape-Preserving Advection Scheme ..... *Yu Rucong* (宇如聪) (479)

Power and Cross-Spectra for the Turbulent Atmospheric Motion and Transports in the Domain of Wave Number Frequency Space: Theoretical Aspects ..... *M. Y. Totugi* (491)

A Modeling Study of Climate Change and Its Implication for Agriculture in China Part II: The Implication of Climate Change for Agriculture in China ..... *Dai Xiaosu* (戴晓苏) and *Ding Yihui* (丁一汇) (499)